Fig. 1A

ATGAAGCTCGCCGCCCTCCTGGGGCTCTGCGTGGCCCTGTCCTGCAGCTCCGC
TCGTGCTTTCTTAGTGGGCTCGGCCAAGCCTGTGGCCCAGCCTGTCGCTGCGC
TGGAGTCGGCGGCGGAGGCCGGGGCCGGGACCCTGGCCAACCCCCTCGGCA
CCCTCAACCCGCTGAAGCTCCTGCTGAGCAGCCTGGGCATCCCCGTGAACCA
CCTCATAGAGGGCTCCCAGAAGTGTGTGGCTGAGCTGGGTCCCCAGGCCGTG
GGGGCCGTGAAGGCCCTGAAGGCCCTGCTGGGGGCCCTGACAGTGTTTGGC

Fig. 1B

CGTGCTTTCTTAGTGGGCTCGGCCAAGCCTGTGGCCCAGCCTGTCGCTGCGCT
GGAGTCGGCGGCGGAGGCCGGGGCCGGGACCCTGGCCAACCCCCTCGGCAC
CCTCAACCCGCTGAAGCTCCTGCTGAGCAGCCTGGGCATCCCCGTGAACCAC
CTCATAGAGGGCTCCCAGAAGTGTGTGGCTGAGCTGGGTCCCCAGGCCGTGG
GGGCCGTGAAGGCCCTGAAGGCCCTGCTGGGGGCCCTGACAGTGTTTGGC

Fig. 1C

TTCTTAGTGGGCTCGGCCAAGCCTGTGGCCCAGCCTGTCGCTGCGCTGGAGTC
GGCGGCGGAGGCCGGGGCCGGGACCCTGGCCAACCCCCTCGGCACCCTCAAC
CCGCTGAAGCTCCTGCTGAGCAGCCTGGGCATCCCCGTGAACCACCTCATAG
AGGGCTCCCAGAAGTGTGTGGCTGAGCTGGGTCCCCAGGCCGTGGGGGCCGT
GAAGGCCCTGAAGGCCCTGCTGGGGGCCCTGACAGTGTTTGGC

Fig. 2A

MKLAALLGLCVALSCSSARAFLVGSAKPVAQPVAALESAAEAGAGTLANPLGTL
NPLKLLLSSLGIPVNHLIEGSQKCVAELGPQAVGAVKALKALLGALTVFG

Fig. 2B

RAFLVGSAKPVAQPVAALESAAEAGAGTLANPLGTLNPLKLLLSSLGIPVNHLIE
GSQKCVAELGPQAVGAVKALKALLGALTVFG

Fig. 2C

FLVGSAKPVAQPVAALESAAEAGAGTLANPLGTLNPLKLLLSSLGIPVNHLIEGS
QKCVAELGPQAVGAVKALKALLGALTVFG

Fig. 3A

ATGAAGCTTACCACCACCTTTCTAGTGCTCTGTGTGGCTCTGCTCAGTGACTC
TGGTGTTGCTTTCTTCATGGACTCATTGGCCAAGCCTGCGGTAGAACCCGTGG
CCGCCCTTGCTCCAGCTGCAGAGGCTGTGGCAGGGGCTGTGCCTAGCCTACC
ATTAAGCCACTTGGCCATCCTGAGGTTCATCCTGGCCAGCATGGGCATCCCAT
TGGATCCTCTCATAGAGGGATCCAGGAAGTGTGTCACCGAGCTGGGCCCTGA
GGCTGTAGGAGCTGTGAAGTCACTGCTGGGGGTCCTGACAATGTTCGGT

Fig. 3B

GTTGCTTTCTTCATGGACTCATTGGCCAAGCCTGCGGTAGAACCCGTGGCCGC
CCTTGCTCCAGCTGCAGAGGCTGTGGCAGGGGCTGTGCCTAGCCTACCATTA
AGCCACTTGGCCATCCTGAGGTTCATCCTGGCCAGCATGGGCATCCCATTGG
ATCCTCTCATAGAGGGATCCAGGAAGTGTGTCACCGAGCTGGGCCCTGAGGC
TGTAGGAGCTGTGAAGTCACTGCTGGGGGTCCTGACAATGTTCGGT

Fig. 3C

TTCTTCATGGACTCATTGGCCAAGCCTGCGGTAGAACCCGTGGCCGCCCTTGC
TCCAGCTGCAGAGGCTGTGGCAGGGGCTGTGCCTAGCCTACCATTAAGCCAC
TTGGCCATCCTGAGGTTCATCCTGGCCAGCATGGGCATCCCATTGGATCCTCT
CATAGAGGGATCCAGGAAGTGTGTCACCGAGCTGGGCCCTGAGGCTGTAGGA
GCTGTGAAGTCACTGCTGGGGGTCCTGACAATGTTCGGT

Fig. 4A

MKLTTTFLVLCVALLSDSGVAFFMDSLAKPAVEPVAALAPAAEAVAGAVPSLPL
SHLAILRFILASMGIPLDPLIEGSRKCVTELGPEAVGAVKSLLGVLTMFG

Fig. 4B

VAFFMDSLAKPAVEPVAALAPAAEAVAGAVPSLPLSHLAILRFILASMGIPLDPLI
EGSRKCVTELGPEAVGAVKSLLGVLTMFG

Fig. 4C

FFMDSLAKPAVEPVAALAPAAEAVAGAVPSLPLSHLAILRFILASMGIPLDPLIEG
SRKCVTELGPEAVGAVKSLLGVLTMFG

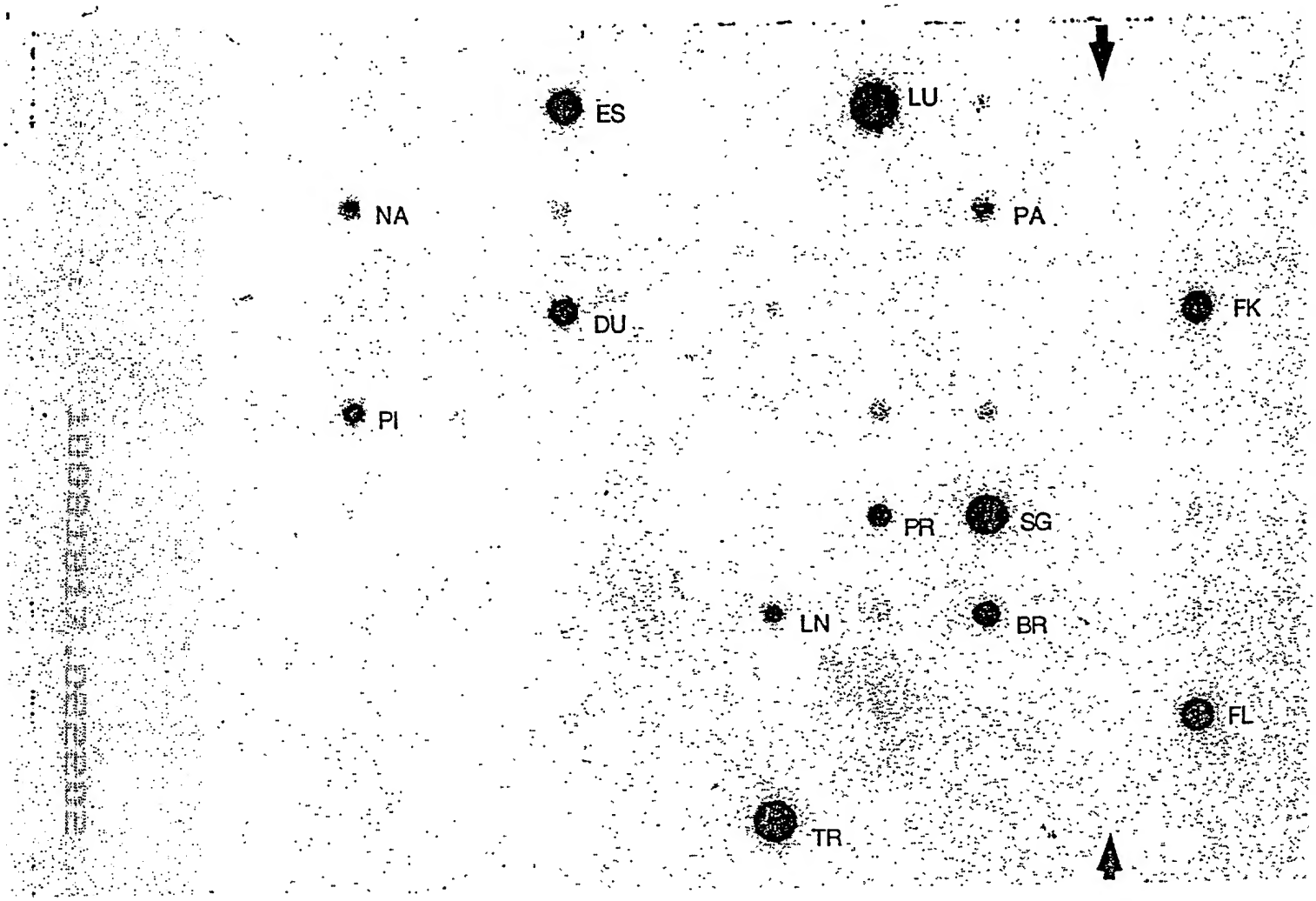


Fig. 5A

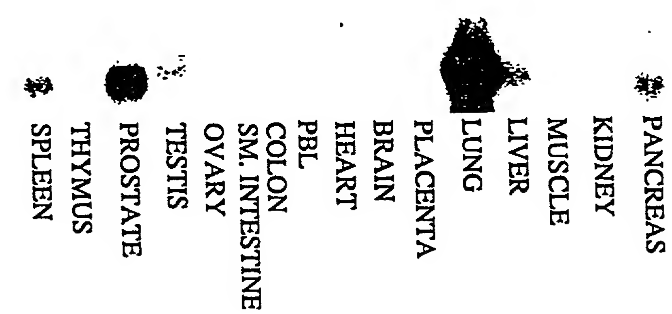


Fig. 5B

Fig 5C

Fig.5D

Fig.5E

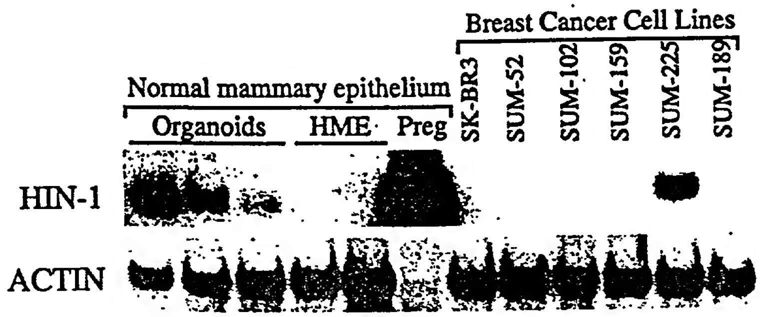

Breast Cancer Cell Lines
Normal mammary epithelium
Organoids
HME
Preg
SK-BR3
SUM-52
SUM-102
SUM-159
SUM-225
SUM-189
HIN-1
ACTIN

Fig. 5F

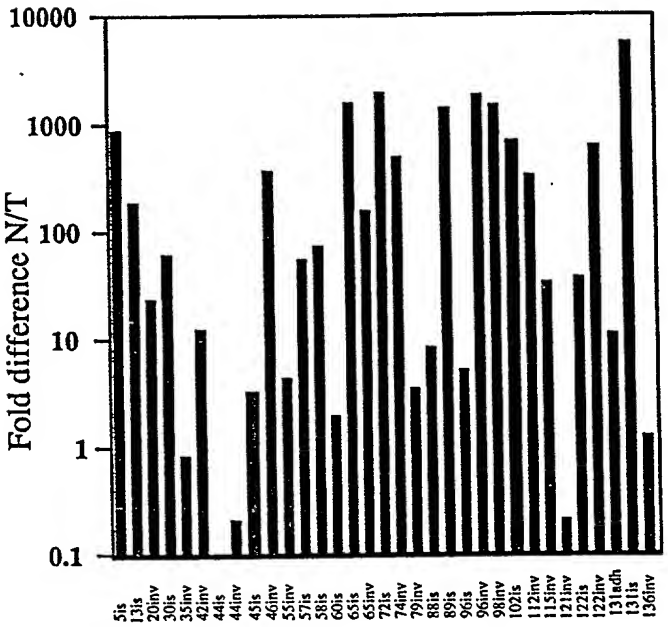

10000
1000
100
10
1
0.1
Fold difference N/T
5is
13is
20inv
30is
35inv
42inv
44is
44inv
45is
46inv
55inv
57is
58is
60is
65is
65inv
72is
74inv
79inv
88is
89is
96is
96inv
98inv
102is
112inv
115inv
121inv
122is
122inv
131adh
131is
136inv

Fig. 5G

Fig. 6A

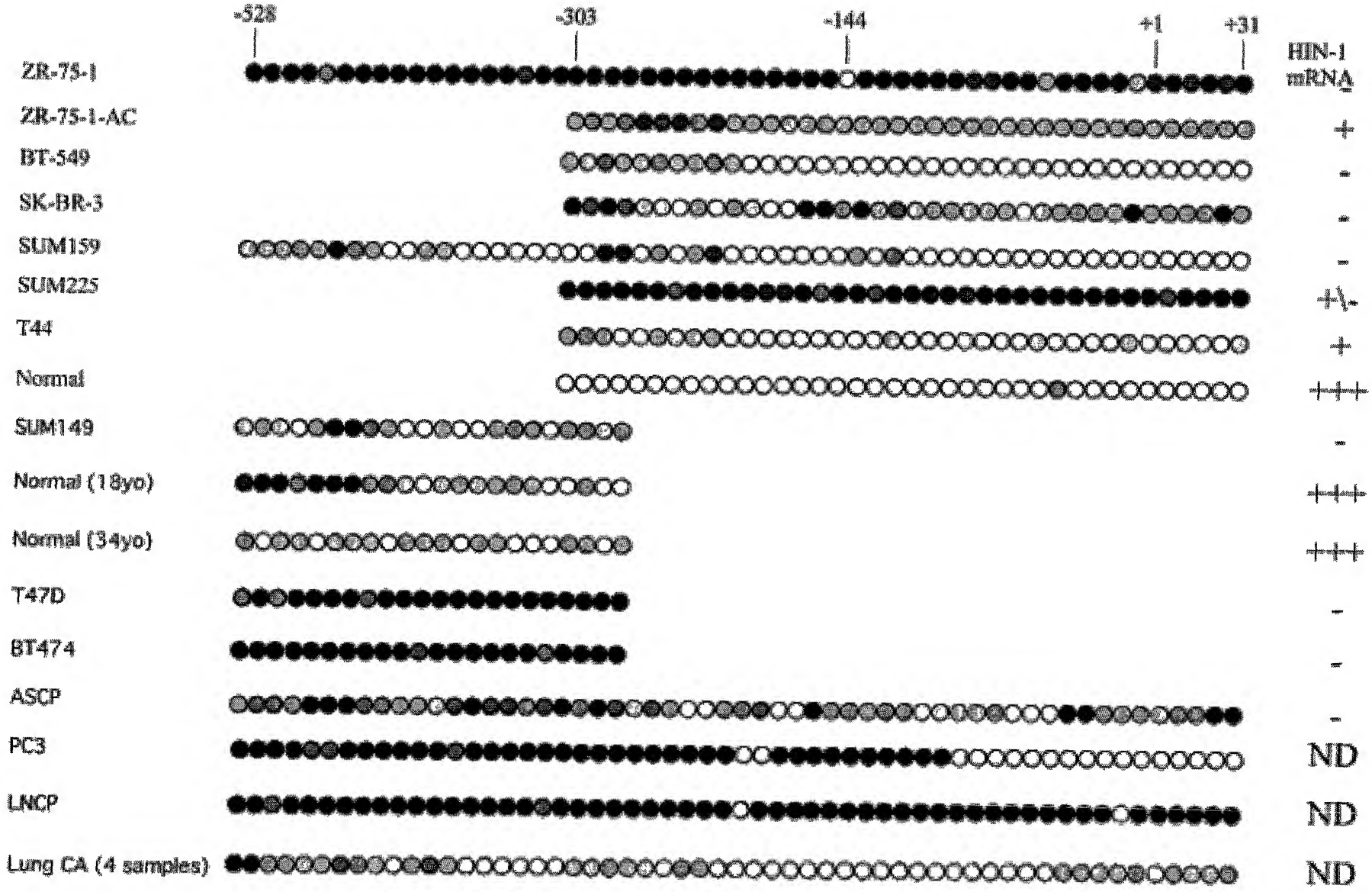

-528
-303
-144
+1
+31
HIN-1 mRNA
ZR-75-1
ZR-75-1-AC
BT-549
SK-BR-3
SUM159
SUM225
T44
Normal
SUM149
Normal (18yo)
Normal (34yo)
T47D
BT474
ASCP
PC3
LNCP
Lung CA (4 samples)
+
-
-
-
+/-
+
+++
-
+++
+++
-
-
-
ND
ND
ND

Fig. 6B

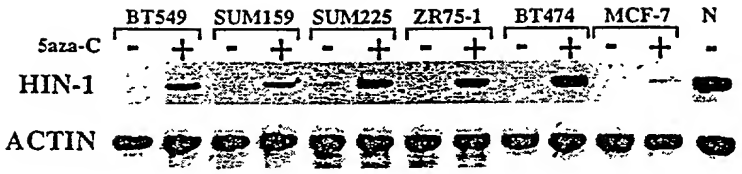
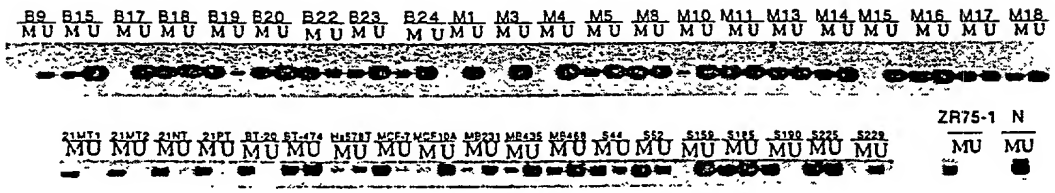

BT549
SUM159
SUM225
ZR75-1
BT474
MCF-7
N
5aza-C
- + - + - + - + - + - + -
HIN-1
ACTIN

Fig. 6C


B9 B15 B17 B18 B19 B20 B22 B23 B24 M1 M3 M4 M5 M8 M10 M11 M13 M14 M15 M16 M17 M18
MU MU MU MU MU MU MU MU MU MU MU MU MU MU MU MU MU MU MU MU MU MU
21MT1 21MT2 21NT 21PT BT-20 BT-474 HS578T MCF-7 MCF10A MB231 MB435 MB468 S44 S62 S159 S185 S190 S225 S229
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ZR75-1 N
MU MU

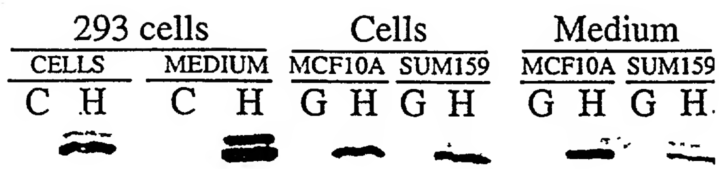

293 cells
CELLS
MEDIUM
C H
C H
Cells
MCF10A
SUM159
G H
G H
Medium
MCF10A
SUM159
G H
G H

Fig. 7

Fig. 8

CGGCCGGGGAGGCGGCCGGGAGTGAGGCCTGATCGTCCCTGGCGCCTCCACC
TCCCCAGGCGCAGAAGGCGCCCACGAGGACCCCCAGTGCCCGACGTTGCCAC
GGTCTGGGATCAGAGGCAGGGACCAGGGAGCCAGGAACTGCGCCGCCCCCG
CCCCTGCCCTGGCGCGAGGGAAGCTCCCTCACCNGAGGGAAGCTCCCCTCAC
CCGGCCCAGCCCTGCAGGGGGGCGCGTGGGGTCAGACCGCAAAGCGAAGGT
GCGGGCCGGGGTGGGCCTCGCGGAGACAAAGGCCGGGCCTGCCTCTCTCAGA
GGGCCCCAGCGCCTGCCAAGAGGAAGTCCTCGAGGCCCGGGCAGGGAAGGG
GGCACGGGCTTCCCAGGGCCCGCCGGCCGCAGCAGGAAGTTGGCCAGGGCA
CGGCCGTGAGCGGAGCGGGCAGGGCTTTCTCAGGAGCGCGGGCGAGGCCGG
CGCTGGAGGGGCGAGGACCGGGTATAAGAAGCCTCGTGGCCTTGCCCGGGC
AGCCGCAGGTTCCCCGCGCGCCCCGAGCCCCCGCGCC

Fig. 9A

GTTCTCTGTTTTGTGTTGGTAGGCGTTGCTTTCTTGGTGGATTCACTGGCCAAG
CCTGTGGTAGAACCCGTGGCTGCCATTGCTACAGCTGCAGAGGCTGTGGCAG
GGGCTGTGCCTAGCCTACCATTAAGCCACTTGGCCATCCTGAGGTTCATCGTG
ACCAGCCTGGGCATCCCATTGGATCCTCTCATAGATGGTTCCAGGAAGTGCGT
CACCGAGCTGGGCCCTGAGGCTGTAGGAGCTGTGAAGTCACTGCTGGGGGCC
CTGACAACGTTCGGT

Fig. 9B

VLCFVLVGVAFLVDSLAKPVVEPVAAIATAAEAVAGAVPSLPLSHLAILRFIVTSL
GIPLDPLIDGSRKCVTELGPEAVGAVKSLLGALTTFG

Fig. 9C

TTCTTGGTGGATTCACTGGCCAAGCCTGTGGTAGAACCCGTGGCTGCCATTGC
TACAGCTGCAGAGGCTGTGGCAGGGGCTGTGCCTAGCCTACCATTAAGCCAC
TTGGCCATCCTGAGGTTCATCGTGACCAGCCTGGGCATCCCATTGGATCCTCT
CATAGATGGTTCCAGGAAGTGCGTCACCGAGCTGGGCCCTGAGGCTGTAGGA
GCTGTGAAGTCACTGCTGGGGGCCCTGACAACGTTCGGT

Fig. 9D

FLVDSLAKPVVEPVAAIATAAEAVAGAVPSLPLSHLAILRFIVTSLGIPLDPLIDGS
RKCVTELGPEAVGAVKSLLGALTTFG

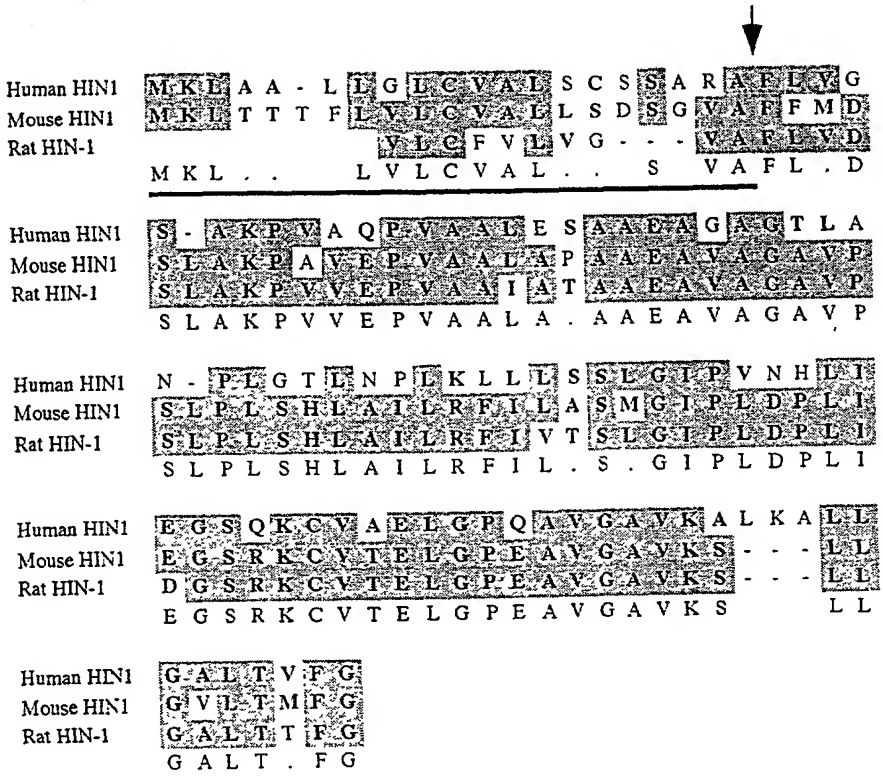

Human HIN1
Mouse HIN1
Rat HIN-1
MKL..LVLCVAL..SVAFL.D
Human HIN1
Mouse HIN1
Rat HIN-1
SLAKPVVEPVAALA.AAEAVAGAVP
Human HIN1
Mouse HIN1
Rat HIN-1
SLPLSHLAILRFIL.S.GIPLDPLI
Human HIN1
Mouse HIN1
Rat HIN-1
EGSRKCVTELGPEAVGAVKS---LL
Human HIN1
Mouse HIN1
Rat HIN-1
GALT.FG

Fig. 10

Fig. 11

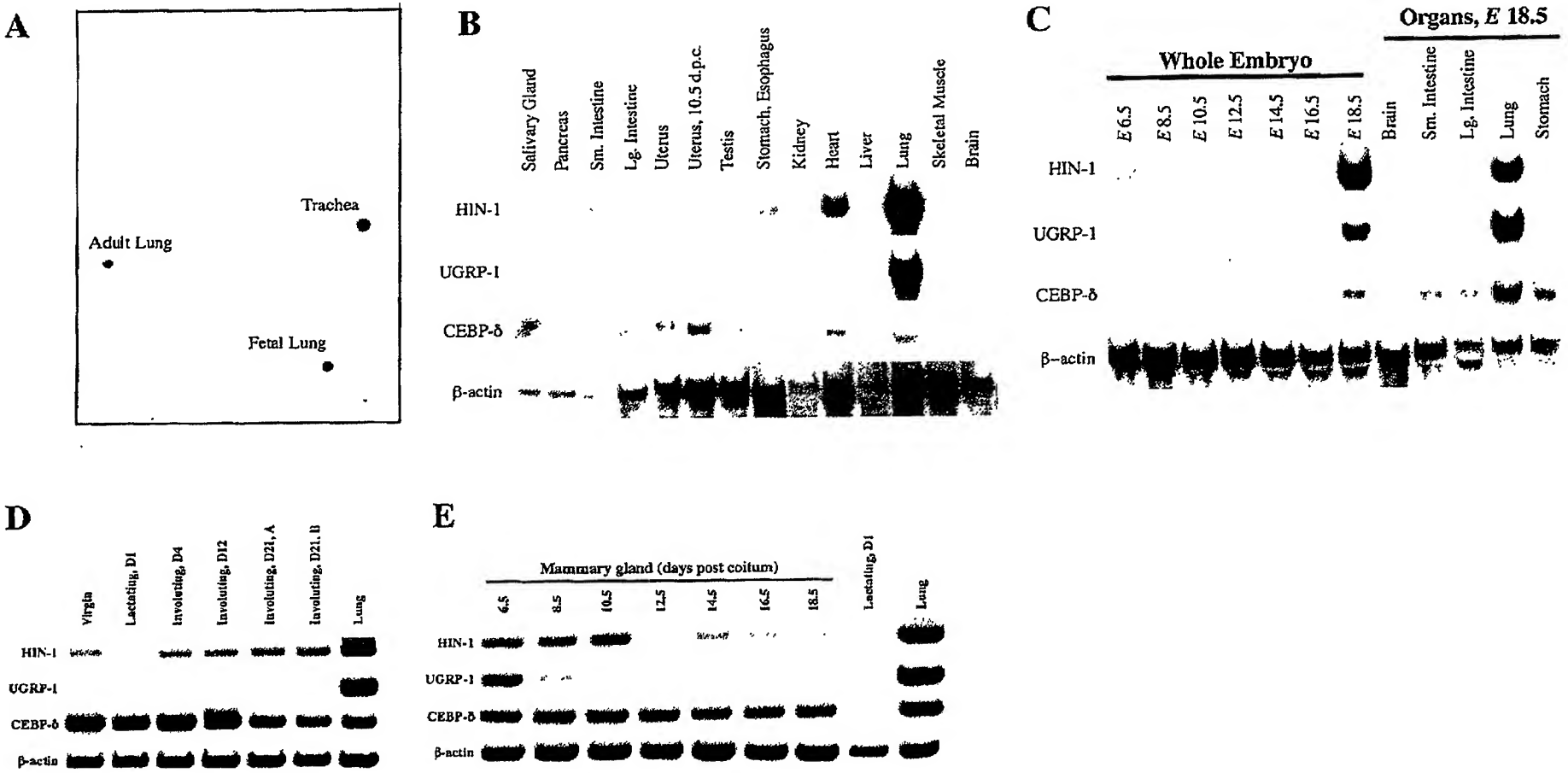

A
Trachea
Adult Lung
Fetal Lung
B
Salivary Gland
Pancreas
Sm. Intestine
Lg. Intestine
Uterus
Uterus, 10.5 d.p.c.
Testis
Stomach, Esophagus
Kidney
Heart
Liver
Lung
Skeletal Muscle
Brain
HIN-1
UGRP-1
CEBP-δ
β-actin
C
Whole Embryo
Organs, E 18.5
E 6.5
E 8.5
E 10.5
E 12.5
E 14.5
E 16.5
E 18.5
Brain
Sm. Intestine
Lg. Intestine
Lung
Stomach
HIN-1
UGRP-1
CEBP-δ
β-actin
D
Virgin
Lactating, D1
Involuting, D4
Involuting, D12
Involuting, D21, A
Involuting, D21, B
Lung
HIN-1
UGRP-1
CEBP-δ
β-actin
E
Mammary gland (days post coitum)
6.5
8.5
10.5
12.5
14.5
16.5
18.5
Lactating, D1
Lung
HIN-1
UGRP-1
CEBP-δ
β-actin

Fig. 12

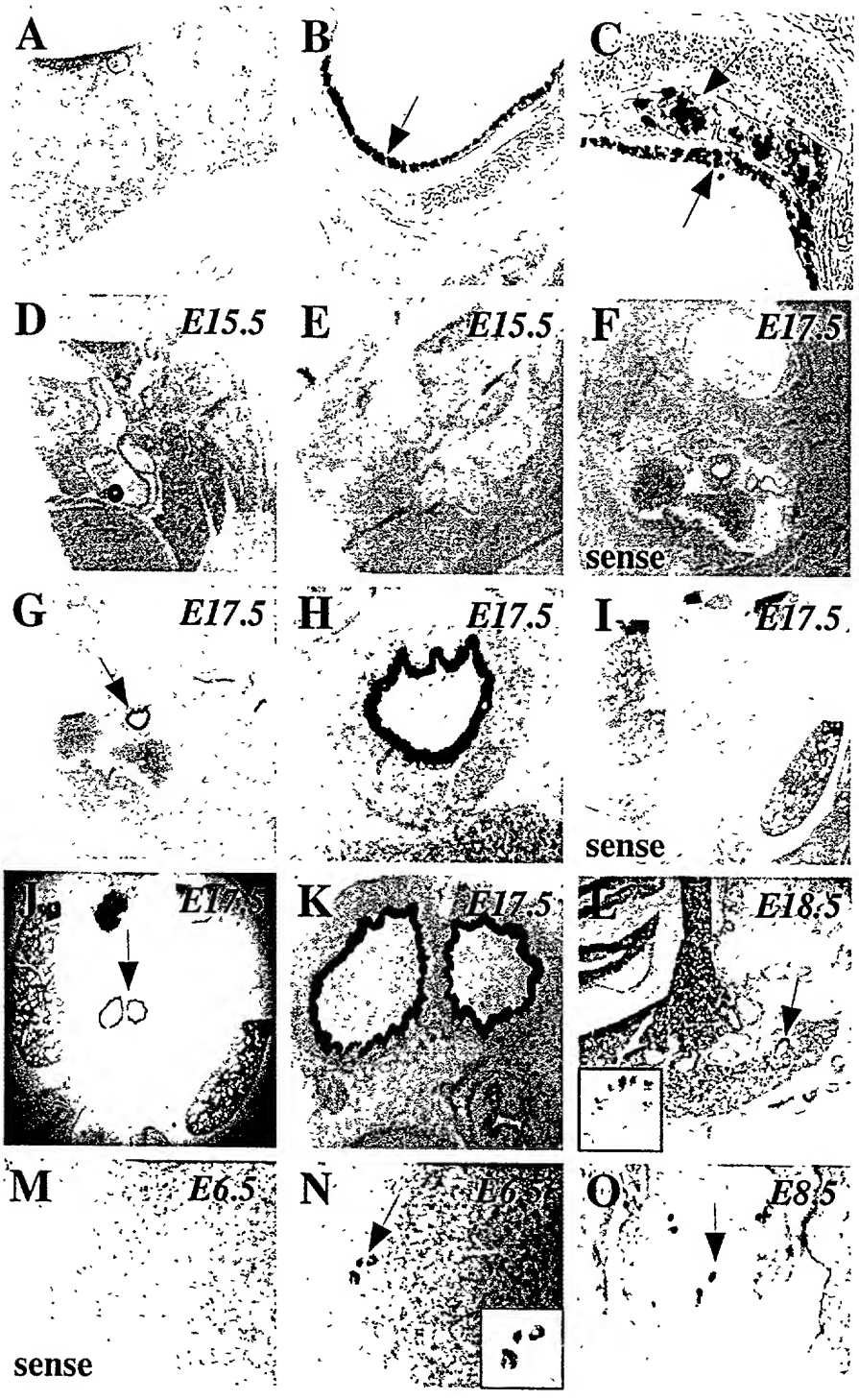

A
B
C
D
E15.5
E
E15.5
F
E17.5
sense
G
E17.5
H
E17.5
I
E17.5
sense
J
E17.5
K
E17.5
L
E18.5
M
E6.5
sense
N
E6.5
O
E8.5

Fig. 13

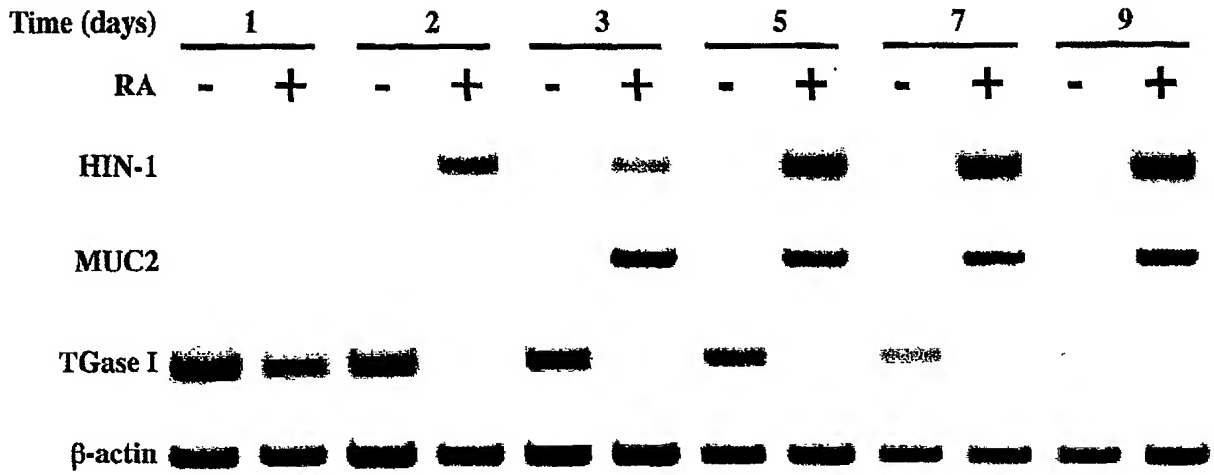
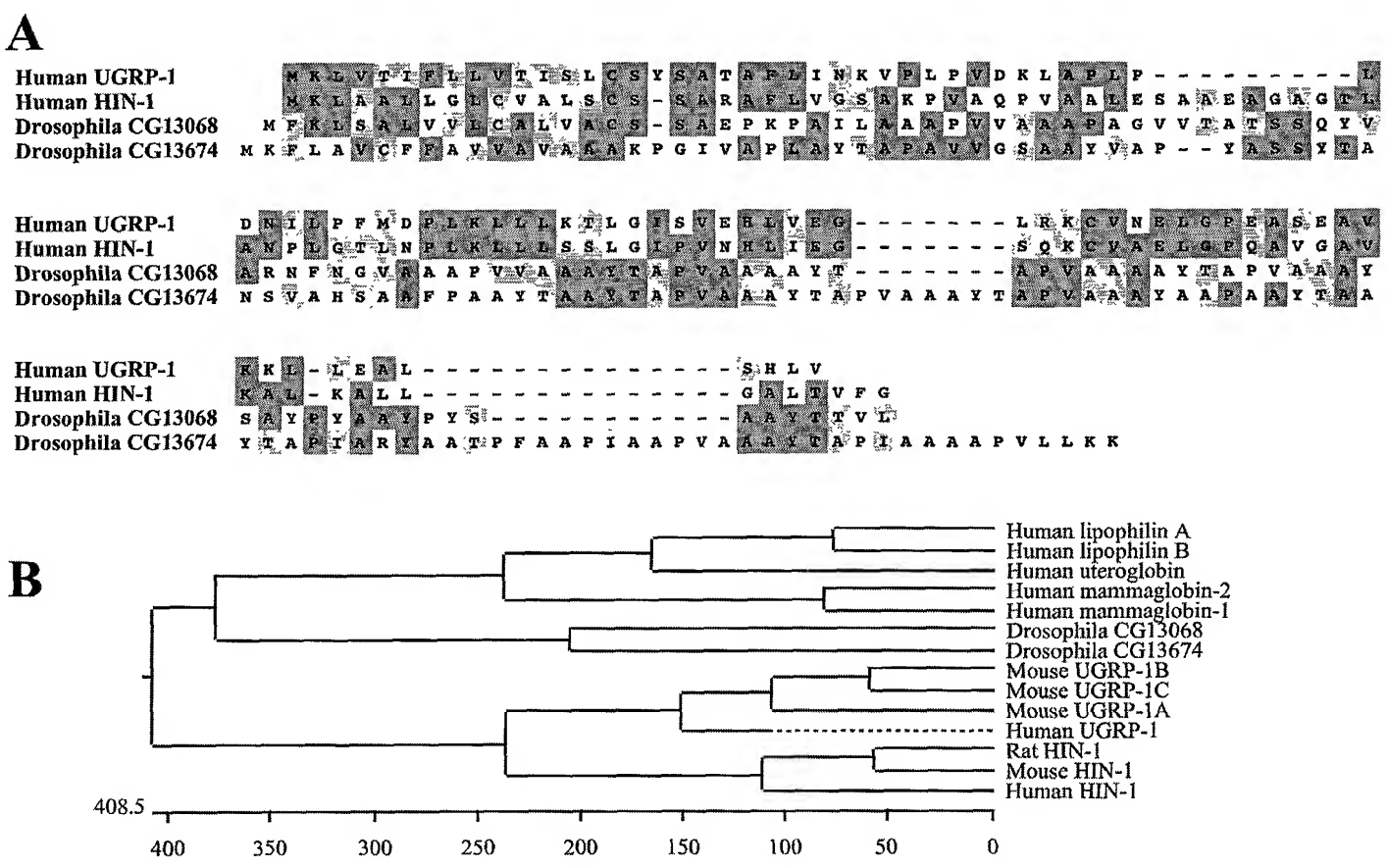


Fig. 14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Human UGRP-1
Human HIN-1
Drosophila CG13068
Drosophila CG13674
B
Human lipophilin A
Human lipophilin B
Human uteroglobin
Human mammaglobin-2
Human mammaglobin-1
Drosophila CG13068
Drosophila CG13674
Mouse UGRP-1B
Mouse UGRP-1C
Mouse UGRP-1A
Human UGRP-1
Rat HIN-1
Mouse HIN-1
Human HIN-1
408.5
400
350
300
250
200
150
100
50
0

Fig. 15

ATGTTCAAGCTGTCTGCCCTCGTTGTCCTGTGCGCTCTGGTGGCCTGCTCCTCG
GCTGAGCCCAAGCCCGCTATCCTGGCCGCCGCTCCAGTGGTTGCAGCTGCTCC
TGCCGGCGTGGTCACCGCTACCAGTTCGCAGTACGTGGCCCGCAACTTCAAC
GGTGTGGCTGCTGCTCCAGTTGTTGCCGCTGCCTACACCGCTCCAGTTGCCGC
CGCTGCCTATACCGCTCCAGTTGCCGCCGCTGCTTATACCGCTCCAGTTGCCG
CTGCCTACTCTGCTTATCCGTATGCCGCCTACCCTTACAGCGCTGCATACACC
ACTGTTTTG

Fig. 16

ATGAAATTCCTCGCCGTCTGCTTCTTCGCTGTTGTGGCTGTGGCTGCTGCCAA
ACCCGGTATTGTGGCTCCTCTGGCCTACACCGCTCCGGCTGTGGTGGGCAGTG
CCGCCTACGTGGCTCCCTACGCCTCCAGCTACACCGCCAACTCGGTGGCCCAC
AGCGCCGCCTTCCCAGCTGCCTACACCGCCGCCTACACTGCTCCCGTTGCTGC
TGCCTATACCGCTCCAGTGGCTGCTGCTTATACCGCTCCAGTGGCCGCTGCGT
ACGCCGCCCCAGCTGCCTATACCGCTGCCTACACCGCCCCCATTGCCCGTTAT
GCCGCCACCCCCTTCGCAGCACCCATCGCCGCTCCCGTGGCTGCCGCCTACAC
CGCCCCCATCGCCGCCGCTGCCCCAGTTCTGCTGAAGAAG